Claims

1. A method for limiting traffic in a packet-oriented network having a plurality of links (L), wherein

- an admissibility check is performed for a group of data packets of a flow to be transmitted over the network,
- the admissibility check is performed on the basis of a threshold value (BBB(i,j)) for the traffic volume (δ(i,j)) between the network ingress node (I) and the network egress node (E) of the flow, and
- the transmission of the group of data packets is not allowed if an authorization of the transmission would lead to a traffic volume (δ(i,j)) exceeding the threshold value (BBB(i,j)).

2. The method as claimed in claim 1, characterized in that

- for all pairs ((i,j)) of network ingress nodes and network egress nodes threshold values (BBB(i,j)) are defined for the traffic volume (δ(i,j)) between each node pair ((i,j)).

3. The method as claimed in claim 2, characterized in that

- the threshold values (BBB (i,j)) for the traffic volume (δ(i,j)) between pairs ((i,j)) of network ingress nodes and network egress nodes are placed in relation to the traffic volume (c(L)) on links (L) of the network, and
- the threshold values (BBB(i,j)) for the traffic volume (δ(i,j)) between network ingress nodes and network egress nodes is defined by means of values for maximum traffic volumes (c(L)) on the links (L) of the network.

4. The method as claimed in claim 3, characterized in that

- the proportional traffic volume (aV(i,j,L)) over the individual links (L) of the network is determined for the

pairs ((i,j)) of network ingress nodes and network egress nodes, and

- the threshold values (BBB(i,j)) for the traffic volume (δ(i,j)) between pairs ((i,j)) of network ingress nodes and network egress nodes are placed in relation to the traffic volume (c(L)) on links (L) of the network on the basis of the values for the proportional traffic volume (aV(i,j,L)) over the individual links (L).

5. The method as claimed in claim 1,
characterized in that
that two further admissibility checks are performed in addition, with one of these admissibility checks being performed on the basis of a threshold value (Ingress(i)) for the traffic routed via the network ingress node (I) of the flow and the other on the basis of a threshold value (Egress(j)) for the traffic routed via the network egress node (E) of the flow.

6. The method as claimed in claim 5,
characterized in that

- a relation is established between the traffic volumes (δ(i,j)) between pairs ((i,j)) of network ingress nodes and network egress nodes and the traffic volume (c(L)) on links (L) of the network, and
- by means of values for a maximum traffic volume on the links of the network, limits (BBB(i,j)) can be determined for the traffic volume between the pairs of network ingress nodes and network egress nodes as well as threshold values (Ingress(i), Egress(j)) for the traffic routed via the network ingress nodes and for the traffic routed via the network egress nodes.

7. The method as claimed in claim 6,
characterized in that

- the relation between the traffic volumes ($\delta(i,j)$) between pairs ((i,j)) of network ingress nodes and network egress nodes and the traffic volume ($c(L)$) on links (L) of the network is established with the aid of inequalities, and
- an optimization method is performed for the traffic volume ($c(L)$) on links (L) of the network, with
-- the inequalities being used as auxiliary conditions for the optimization, and
-- the proportional traffic volume ($aV(i,j,L)$) over the individual links (L) of the network being used for formulating the relation between the traffic volumes ($\delta(i,j)$) between pairs of network ingress nodes and network egress nodes and the traffic volume ($c(L)$) on links (L) of the network.

8. The method according to one of the preceding claims, characterized in that
if a link (L) drops out, the limits ($Ingress(i)$, $Egress(j)$) or, as the case may be, threshold values ($BBB(i,j)$) for the admissibility check or admissibility checks are reset with the condition that no packets are transmitted via the failed link (L).

9. The method according to one of the preceding claims, characterized in that
limits ($Ingress(i)$,$Egress(j)$) or, as the case may be, threshold values ($BBB(i,j)$) dependent on the class of service of the group of packets are used for at least one admissibility check.

10. The method according to one of the preceding claims, characterized in that
- limits or threshold values are determined for each of a plurality of possible problem situations, which limits or threshold values cause the traffic volume to remain within an admissible framework even in a problem situation, and

- the limits or threshold values are set to the minimum of the values for the problem situations under investigation.

11. The method according to one of the claims 7 to 10, characterized in that

- at least one further relation is established with the aid of an inequality, which relation expresses a traffic limitation on a link (L) of the network or on a link (L) leading away from the network, and
- the optimization method is performed under this further auxiliary condition.